

1. A holding device for an optical element, said holding device, comprising: at least one member formed of a silicon-containing aluminum material.
- 5 2. A holding device as claimed in claim 1, wherein the silicon content of said silicon-containing aluminum material is selected in such a way that the thermal expansion coefficient of said silicon-containing aluminum material is matched to the thermal expansion coefficient of the optical element.
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3. A holding device as claimed in claim 2, wherein the optical element comprises at least one of: a lens, a plain plate, a mirror, and a prism.
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4. A holding device as claimed in claim 1, wherein, said member comprises at least a portion of a lens mount.
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5. A holding device as claimed in claim 1, wherein, said member comprises at least a portion of an objective housing.
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6. A holding device as claimed in claim 1, wherein, the silicon content of said aluminum material is more than 15% by weight.
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7. A holding device as claimed in claim 1, wherein the silicon content of said aluminum material is more than 30% by weight or more than 40% by weight.
8. A holding device as claimed in claim 1, said material is a material which, at a temperature in the region of 21°C,

has a coefficient of thermal expansion $\alpha \leq 24 * 10^{-6} K^{-1}$ at
a density of $\rho \leq 7.5 \text{ g/cm}^3$.

9. A holding device as claimed in claim 1 wherein said member comprises a part of an aerial picture camera.

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